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STRATEGY RESEARCH **PROJECT**

UNITED STATES POLICY FOR ANTI-PERSONNEL LANDMINES

BY

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United States Policy for Anti-Personnel Landmines

by

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ABSTRACT

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Every month, landmines around the world kill 800 people. An estimated 100 million active anti-personnel mines, left from past conflicts lie beneath the ground in at least 70 countries. The International Red Cross estimates that at the current pace of demining, it will cost \$33 billion to rid the world of mines, but only if no more are added. Anti-personnel landmines (APL) are an indiscriminate weapon that kill or maim whoever triggers them; friend or foe, civilian or soldier. Over 90 nations have signed the Ottawa Treaty banning all anti-personnel landmines. The U.S. refuses to sign the treaty based on the belief that anti-personnel landmines, of all types, are militarily significant weapons. Recent computer simulations, historical examples and comments by military professional suggest that anti-personnel landmines may not be as effective as the Department of Defense believes.

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U. S. POLICY FOR ANTI-PERSONNEL LANDMINES

Every month, landmines around the world kill 800 people. An estimated 100 million active anti-personnel mines, left from past conflicts lie beneath the ground in at least 70 countries. The International Red Cross estimates that at the current pace of demining, it will cost \$33 billion to rid the world of mines, but only if no more are added. Anti-personnel landmines (APL) are an indiscriminate weapon that kill or maim whoever triggers them; friend or foe, civilian or soldier. The purpose of this paper is to discuss the current United States policy for the use of anti-personnel landmines and to consider alternatives.

ANTI-PERSONNEL LANDMINE TYPES AND THEIR USE

The operational and tactical role of landmines is to protect defending forces and help guard flanks during attacks. They are used to obstruct and influence the direction of enemy movement and reinforce natural barriers and obstacles for defensive positions. Mines may also be used to delay or stop enemy forces for destruction by other weapons and to inflict direct damage on an enemy. ² The Department of Defense considers anti-personnel landmines to be militarily significant weapons. ³ The armed services have spent considerable resources on technology and delivery means and have volumes of manuals on their technical and doctrinal use.

The Army has large stockpiles of anti-personnel mines and routinely practices for their use. Army anti-personnel landmines can be classified into two types; "dumb" mines and "smart" mines (figure 1). "Dumb" mines are those that once laid and armed will not explode until detonated. The "dumb" mines are labeled as M14 and M16. These are man-triggered mines and are located only in Korea and Cuba. The exact number is classified, but military experts routinely state that nearly 1 million mines lay buried between North and South Korea. The mines in Cuba are being removed at this time as part of the U.S. effort to limit anti-personnel landmines.

"Smart" mines are those that if not detonated, will selfdestruct by exploding after a set amount of time. The selfdestruct time ranges from 4 hours to 15 days, depending on the
type of mine and how it is used. If the self-destruct function
does not initiate, the mine will disarm itself within 120 days.
The United States has five major types of "smart" mines, each
with its own delivery means. The Area Denial Artillery Munition
(ADAM) is cannon launched 155mm-howitzer shell delivered out to
ranges of 17.7 kilometers. The M87 is the second major type.
It is a mixed system of anti-personnel and anti-tank mines (5
anti-tank, 1 anti-personnel). The mixed system of anti-tank and
anti-personnel mines is used to protect the anti-tank mines from
being tampered with by dismounted soldiers. The M87 is delivered
by the Volcano Dispenser mounted on a helicopter, 5-ton truck, or

tracked vehicle. The third major system is the Modular Packed Mine System (MOPMS). This is also a mixed system (17 anti-tank, 4 anti-personnel). MOPMS is a man portable (4-man lift) system used at the small unit level. The fourth major system is the Pursuit Deterrent Munition (PDM). This is a small anti-personnel deployed by hand and used primarily by Special Operations Forces. The last major system is the Air Force / Navy aerial delivered Gator mine system. This is also a mixed anti-tank / anti-personnel system. The Air Force version contains 94 mines (72 AT, 22AP) and the Navy version has 60 mines (45 AT, 15 AP).6

U.S. Anti-Personnel Landmines

"SMART" Landmines (Self-Destructing)

Area Denial Artillery Munition (ADAM): Artillery Delivered (155mm), 36 APL in each shell, 9,720,000 mines stockpiled.

M87: Mixed AT/AP system, delivered by Volcano system, 100,000 canisters stockpiled.

Modular Packed Mine System (MOPMS): Man portable, mixed AT/AP system, 2,000 stockpiled.

Pursuit Deterrent Munition (PDM): Hand emplaced, 16,000 mines stockpiled.

Gator Mine (CBU78/89): Air delivered, mixed AT/AP system, 14,300 stockpiled

"DUMB"
(Non Self-Destructing)

M14/M16: Man triggered, located only in Korea and Cuba. Total number in Korea is classified, but is in excess of 1 million. Mines in Cuba are being removed at this time.

Figure 1 U.S. APL

Joint publications and Army doctrine outline the use of landmines. Field Manual 90-7, Combined Arms Obstacle

Integration, describes the use of all obstacles and barriers

(including landmines) in tactical situations and defines the planning process at brigade, division and corps. The FM 6-20 (Fire Support Doctrine) series outlines the use of artillery delivered mines and their integration into offensive and defensive operations. The FM 5-100 series manuals are the capstone engineer manuals for obstacle employment. Engineers have staff responsibility for planning obstacle and barrier use in Army operations. Joint Publication 3-15, Joint Doctrine for Barriers, Obstacles and Mine Warfare, defines joint command and control, planning, and employment for mine and countermine operations. Air Force and Navy use is also outlined in Joint Pub 3-15. The primary uses of aerial delivered mines are to support deep interdiction of attacking forces and to deny the enemy the use of his airfield by mining the runways.

UNITED STATES ANTI-PERSONNEL LAND MINE POLICY

The current U.S. policy on anti-personnel landmines is expressed in several recent Presidential Decision Directives (PDD). PDD-48 announced by President Clinton on 16 May 1996 stated that the U.S. would aggressively pursue an international agreement to ban anti-personnel landmines (APL). It further stated that the United States views the security situation on the Korean Peninsula as a unique case. The international agreement must protect the U.S. right to use APL in defense of Korea until alternatives become available, or the risk of aggression has been

removed.8

Additionally, the U.S. will unilaterally cease using and demiltarize all non-self -destructing APL (dumb landmines) not needed for training or to defend the U.S. and its allies from armed aggression in Korea. The U.S. also reserves the right, until an international agreement takes place, to use self-destructing / self-deactivating APL (smart mines) in military hostilities to safeguard American lives and hasten and end of fighting. Finally, PDD-48 states that DOD will undertake programs to end reliance on APL and develop improved mine detection and clearing technology. DOD will also significantly expand the U.S. humanitarian demining program.

On 17 January 1997, the President further refined U.S. policy on anti-personnel landmines with PDD-54. This directive states that the U.S. will seek to negotiate a global ban on landmines at the Conference on Disarmament (CD) and review progress of the CD after its second session in June 1997. The Conference on Disarmament is a UN-sponsored group designed to negotiate international arms control treaties. PDD-54 also stated that the U.S. would impose a unilateral APL stockpile cap and permanent ban on APL transfers. 10

The U.S. again expressed its APL policy during its participation in the "Ottawa Process" negotiations 1-21 September 1997. The Ottawa Process was a forum, sponsored by the Canadian government, established to negotiate a treaty that banned all

APL. The major difference between the Conference on Disarmament (CD) and the Ottawa Process is that the CD is a formal United Nations venue used to negotiate international arms control treaties. The CD met in two sessions in 1997, but remained deadlocked, as several nations linked the APL issue with nuclear disarmament. The Conference on Disarmament continues to be an active venue for anti-personnel mine negotiations.

The Ottawa Treaty was concluded and signed by over 90 nations in December 1997. In the final version, there would be "...no APL use, development, production, acquisition, stockpiling or transfer to anyone, and a commitment to destroy all antipersonnel mines." Each treaty signer is required to "destroy or ensure the destruction" of all stockpiled mines it owns, possess, or has under its jurisdiction or control within four years of the treaty's entry into force. The entry into force period of the Ottawa Treaty is six months after the 40th nation has ratified the treaty. This period is likely to begin in mid to late 1998. Mined areas under state-party control are required to be cleared within 10 years. A party may also request an extension of up to ten years to complete the destruction of emplaced mines. 14

The U.S. position in this process was to ban all "dumb" landmines, with the exception of Korea, and negotiate an exception for smart anti-personnel mines that protect anti-tank mines. It also includes a provision that would let countries

withdraw from the treaty after a six-month waiting period, if they were victims of aggression. The U.S. would not agree, however, to remove dumb landmines in North Korea. 15

Consequently, President Clinton has declared that the U.S. will not sign the landmine treaty unless the mines in Korea are excluded. 16

The latest announcement on U.S. anti-personnel landmine policy occurred on October 31, 1997. Secretary of Defense, William Cohen, and Secretary of State, Madeleine Albright, announced a new initiative by President Clinton called "Demining 2010." This is an U.S. led initiative to remove all antipersonnel landmines from over 64 countries by the year 2010. To help coordinate the initiative, the Clinton administration has named Ambassador Karl Inderfurth to serve as the U.S. Special Representative of the President and the Secretary of State for Global Humanitarian Demining. This initiative also commits to expanding the U.S. demining program from \$68 million to \$77 million in fiscal year 1998. Secretary Cohen noted during this announcement that the United States contributes more financial aid to removing landmines than the rest of the world's donor countries combined.¹⁷

Limitations for the use of anti-personnel mines have also been enacted into public law. Public Law 104-107, APL Use Moratorium, sponsored by Senator Patrick Leahy (D-Vermont) became law as part of the FY96 Senate Foreign Operations Appropriations

Bill. It requires a one-year APL use moratorium to take effect beginning 12 February 1999. The only authorized use of APL during this one-year period is a perimeter marked and monitored area along international borders or demilitarized zones. The legislation restricts both APL and most anti-tank landmine systems because they both contain embedded APL. The intent of the current U.S. policy is to restrict only anti-personnel landmine use. Anti-tank mines use should not be effected.

A final point on U.S. policy is the overwhelming support of the leadership in all the armed services for the continued use of landmines. The former Chairman of the Joint Chiefs of Staff, General Shalikashvili, the four current Service Chiefs, and the warfighting CINC's have all stated that APL use is necessary to ensure the protection of American troops and hasten an end to hostilities. 19

In summary, U.S. anti-personnel landmine policy is complex in nature and appears to change as domestic and international pressure mounts. Though complex and fluid, U.S. policy clearly has two major goals. The first objective is to deflect international pressure to ban anti-personnel landmines by expanding demining efforts. The second objective is to seek an international long-term agreement for a ban on all anti-personnel landmines except for those currently in Korea.

FLAWS IN THE U.S. POLICY ?

Is U.S. policy on anti-personnel landmines commensurate with its position as a world power? In order to answer this question, it is appropriate to compare U.S. policy and pro-landmine arguments against current political and social pressures, historical effectiveness of landmines, effectiveness of current systems, tactical use issues, and the view of the allies that depend on our mines.

Public outcry against anti-personnel landmines in the United States and abroad is growing. The recent death of Princess Diana, a visible advocate for a total landmine ban, solidified public support against mines. The International Campaign to Ban Landmines (ICBL) has recently been awarded the Nobel Prize for Peace. 20 Over 90 nations, including Russia, have signed the Ottawa Treaty banning anti-personnel landmine use. The United States' refusal to sign the ban leaves it in the same company as the roque nations of Cuba, Iran, Iraq, and North Korea. 21 Former senior military leaders are endorsing the idea of a ban on APL. Fourteen senior officers, including GEN (R) H. Norman Schwarzkopf (former Commander, Operation Desert Storm), GEN (R) David Jones (former CJCS), and GEN (R) John Galvin (former SACEUR), all have said that the APL is not essential and that the ban is militarily responsible. 22 These same retired leaders have compared antipersonnel mine use to that of poison gas. 23

As previously discussed, U.S. policy places special

importance on landmines in Korea. The United States has stated that anti-personnel landmines are key to defending against, and subsequently defeating, an attacking enemy from the north. Two offices within the Office of the Under Secretary of Defense commissioned studies to determine the risk of banning landmines and to evaluate the military utility of landmines. The United States Army Concepts and Analysis Agency (CAA) conducted the study to determine the "cost" of not using landmines in several tactical scenarios, including Korea. The Institute for Defense Analysis (IDA) conducted the research effort to determine military utility.²⁴

The executive summary to the IDA report states that many factors affect the outcome of combat without landmines. The balance of offensive versus defensive operations, the nature of the terrain, and actual restrictions imposed and adhered to by the participants and several others must be considered. The summary further states, "while a landmine treaty would clearly increase prospective U.S. losses for some combinations of these factor, the magnitude of the increase is highly variable, and for some combinations a treaty might actually reduce U.S. losses. Since the conditions of future conflicts cannot be predicted with certainty, the consequences of a treaty for future U.S. casualties cannot be projected with certainty, either."²⁵ In summary, the IDA report is inconclusive as to the effectiveness of landmines.

CAA determined that without mines, the U.S. and it's South Korean allies would repulse the attack, but at greater risk. The enemy culmination would be delayed and the enemy would penetrate farther into South Korea. U.S. and South Korean weapons losses would increase by approximately 10% and the force exchange ration (FER) would also decrease by approximately 10%. The analysis shows that the fighting occurs closer to friendly positions and there are higher demands for indirect fire support.²⁶

The campaign analysis further shows that another maneuver brigade, a Cavalry regiment and additional tactical air support would be needed to offset the landmine loss. The summary statement of the CAA study concludes that, "without mines, degradation to effectiveness and increased risk exists...particularly during the critical halting phase," It further states that the risk in Korea without landmines is high and unacceptable.²⁷

There is, however, another key point that comes out of this study. The U.S. casualty rate is actually lower in the "no mine case," than in the case where all types of mines are used. The no mine scenario is "fought" without mines of any kind and with no additional forces to replace the perceived loss of combat power. The casualty rate drops by 10% in the "no mine case" because U.S. tactics must change, according to the model. U.S. forces trade space for time until enough force can be used to halt the North Korean advance. Seoul does not fall into North

Korean hands in this scenario. It seems logical that if campaign objectives are met and the casualty rate is lower, then there is again, some question as to the effectiveness of anti-personnel landmines.

Lieutenant General (R) James F. Hollingsworth, former commander of U.S. forces in Korea (1973-1976), endorsed a report titled "Exploding the Landmine Myth in Korea," that claims to uncover "fatal flaws" in the Institute for Defense Analysis simulation used to justify the Korean anti-personnel mine In the endorsement, LTG (R) Hollingsworth also lends his military expertise on the defense of South Korea and the use of anti-personnel landmines. He argued that despite significant changes in both sides' capabilities since 1976, he is confident that his assessment of the limited role of anti-personnel landmines is accurate. He bluntly states that "if we are relying on these weapons to defend the Korean peninsula we are in big trouble."29 Hollingsworth further states that according to most scenarios, mines would be scattered by the thousands from the air and artillery in the path of advancing troops. He believes that the prospect of the flood of civilian refugees and the fluidity and rapid response needs of our own counter attacking forces, coupled with the use of scatterable mines would be a game plan for disaster. 30

Hollingsworth believes that North Korea's mechanized assault can be destroyed well north of Seoul. He states that our

complete control of the air, coupled with our ability to take the war to the North, as we did in the Gulf, will ensure quick success and complete defeat for North Korea. Additionally, Hollingsworth believes North Korea will neutralize much of the minefield effectiveness with rocket line charges, fuel air explosives and other breaching techniques. He also assumes that North Korea's disciplined troops will be just as willing to move through minefields, despite taking casualties, as they were when they and Chinese troops did so during the Korean War. 31

Exploding the Landmine Myth in Korea also claims to reveal a number of unrealistic assumptions in the IDA simulation. North Korean rates of advance (20 kilometers per hour) are nearly as rapid as U.S. rates in the Gulf War. 32 However, the North Koreans would not be crossing wide desert with unlimited air support. They would be fighting through narrow mountain roads against a fully modernized, highly trained, and competent U.S. and South Korean force with complete control of the air. According to the report, the model does not take into account recent improvements in South Korean capabilities. 33 The South Korean Army has recently purchased Multiple Rocket Launchers (MLRS) and Stinger missiles for its arsenal. The MLRS system, in particular, will enhance the South Korean warfighting capability against an attacking ground force. The report also disputes the weather effects in the model. There is no dispute that there will be periods of heavy rain in Korea. It is likely, however,

that the same rains that ground U.S. reconnaissance and combat aircraft for days at a time, will also slow the advance of North Korean forces. 34

The final area of contention in the report is the no-notice attack by North Korea. North Korea pre-positions bridging equipment, weapons and munitions near the border, but, most of it is stored underground. U.S. satellite and aerial reconnaissance, and other intelligence gathering assets, would provide a number of days warning if North Korea moved its material out in the open and brought its forces to a full state of readiness.³⁵

The removal of anti-personnel landmines in Korea may involve a certain degree of strategic risk. However, non-lethal barriers and obstacles could be erected during the five years it will take to clear the anti-personnel landmines. The existing anti-tank mines, coupled with the sensors and additional obstacles would provide adequate protection for U.S. and Allied forces. The United States already has the technology to replace the AP mines with unattended ground sensors (UGS) to detect movement and non-lethal devices, such as sticky foam to create an obstacle for advancing dismounted infantryman. Other options exist to reinforce the current minefields. It would be a relatively low cost operation to pre-position an additional MLRS battalion in Korea and man it on a rotational basis with a National Guard artillery battalion. Korea also could be scheduled to receive modern equipment, as it becomes available, such as the Crusader

howitzer and the cannon launched Search and Destroy Anti-Armor Munition (SADARM). The MLRS Army Tactical Missile System (ATACMS) Block II munition, currently in development, will have the ability to attack moving and stationary armor. The early deployment of Block II to Korea would help offset any perceived lethality shortfall.

HISTORICAL PERSPECTIVE

The results of the simulations are not conclusive with regard to anti-personnel landmine effectiveness and necessity. A more accurate appraisal of anti-personnel mine effectiveness may come from a historical review of recent anti-personnel mine use and their effectiveness on combat outcomes.

During the Persian Gulf War, the Iraqi Army may have given itself a false sense of security with regards to the strength of their defensive positions. The effectiveness of Iraqi minefields was also overstated by U.S. troops. The Iraqi Army laid an estimated 9 million mines in and around Kuwait. Most of these minefields were simply by-passed, and where necessary, easily breached. The 1st Infantry Division estimated needing 18 hours to breach the minefield, but in reality only needed 2 hours. It cannot be argued that Iraqi landmines were force multipliers.

There was limited use of landmines in the Gulf War by the United States. The Army did not use the technologically advanced artillery delivered smart mines, nor did they use dumb mines.

The Army feared that the use of artillery delivered landmines would limit their tactical flexibility and slow its advance. The Air Force and the Navy did use the Gator system in combat. system was used to sprinkle landmines on Iraqi airfields to preclude their use and to attack Iraqi NBC storage sites by limiting movement around them. A small number were used to attack armored forces, but not nearly the number planned. 39 The effectiveness of Gator use is questionable. Nearly 1250 CBU-78/89's were dropped, at a cost of \$13 million (\$39,900 each).40 At best, the airfield interdiction efforts were a nuisance, since the Iraqi Air Force fled Iraq with no intention There is no record of the effectiveness of the of fighting. attacks on NBC storage sites and the decision was made early in the war to limit Gator use because of the fear of a rapid moving advance by the Coalition forces.

The only recorded success of Gator mines was the mining of approaches to the Al Rumayla Bridge "...helping to create a bottleneck that hampered the flight of the Iraqi Army." The reason this attack was successful was that the mines slowed an armored force, while air power attacked an exposed, disorganized enemy. It is impossible to deduce from the reports whether the mines were effective because they were a mix of anti-personnel and anti-tank, or if anti-tank pure would have sufficed. It seems reasonable to assume that the mines that halted the armored vehicles were the anti-tank and that anti-personnel mines played

a minor, if any, role in this engagement. The American Air Force's combat multipliers were their superior training and aircraft; not the use of easily cleared anti-personnel mines on Iraqi airfields and NBC shelters.

During the Iran / Iraq war (1980-1989) both sides used landmines extensively. Breaching of minefields was often carried out by martyrs who stormed across minefields to open the way for professional forces. 42 A factor often overlooked in estimating the military utility of anti-personnel landmines is the opponent's willingness to except casualties. The International Red Cross book titled Landmines, Friend or Foe states "...in cases such as the Iran / Iraq war, the Korean War, and highly motivated revolutionary struggles, the utility of anti-personnel mines is vastly reduced."43 The casualties entailed were regarded as acceptable by those country's leaders.44 Well-trained, wellequipped forces use leadership, training and technology to quickly breach or by-pass minefields. Less equipped, but equally motivated forces, simply breach with high casualty rates. Minefields are not a significant combat multiplier in either instance. Former Marine Corps Commandant Alfred Gray has eloquently supported this view. He says "... I know of no situation in the Korean War, nor in the five years I served in Southeast Asia, nor in Panama, nor Desert Shield-Desert Storm where our use of mine warfare truly channelized the enemy and brought him into a destructive pattern. I am not aware of any operational

advantage from the broad deployment of mines."45

In summary, the U.S. has already banned the use of "dumb" anti-personnel mines everywhere except Korea. The "smart" mines currently in use are of questionable utility. Artillery delivered mines have been in the inventory since the 1970's. They have never been fired in combat, nor have they been used in Small Scale Contingency (SSC) operations ranging from Grenada and Haiti to Panama, Somalia, and Lebanon. A Major Theater War (MTW) was fought in the Persian Gulf, and landmines were not a combat multiplier for the ground forces.

TACTICAL USE ISSUES

There are numerous other tactical, operational, and training issues involved in the use of remotely delivered, "smart" antipersonnel landmines. The National Command Authority (NCA), through the Chairman, Joint Chiefs of Staff, provides guidance for the Rules of Engagement (ROE) for mine use and the authority for release of these munitions. In Army operations the use of landmines is strictly controlled. The Corps commander must approve the use of long duration (15 day) scatterable mines. The use of mines is tightly controlled due to the adverse impact they may have on friendly operations and the danger of fratricide.

Joint Publication 3-15 acknowledges the danger of using mines and the problems with reporting and marking their locations. $\underline{JP3-15}$ states, "scatterable mines are emplaced

without regard to classical patterns so that their locations cannot be precisely recorded"⁴⁶ It goes on to state that, "once emplaced, minefields are lethal and unable to distinguish between friend and foe."⁴⁷ The U.S. military recognizes in its own publications that remotely delivered landmines are indiscriminate killers and that there are difficulties with accurate location. Anti-personnel landmines, either dumb or smart, not only have questionable military utility, but also are difficult to use and are a danger to friendly forces and civilians.

The Army realizes the difficulty in using mines and trains routinely for their use. The rotational training units use remotely delivered "smart" anti-personnel landmines in training exercises at the National Training Center. The results are mixed. Artillery delivered minefields take time and resources to emplace. An average 400-meter by 400-meter minefield takes one artillery battery approximately 30 minutes to fire. The firing battery must immediately displace to a new location and then prepare to fire again. The entire process takes the firing battery out of fight for at least 60 minutes. Once emplaced, the minefield must be kept under constant surveillance or the opposing force will easily breach the minefield.

It is important to note that remotely delivered mines have had success at the National Training Center. When minefield use is planned in advance and the terrain and tactical situation are

multiplier." In order to be effective the artillery, aviation and and/or engineer assets must be available to emplace the minefield and fire support or intelligence assets be available to observe the minefield and respond to opposing units attempting to breach. If the breaching unit is poorly trained or if the observation and fire support assets are well coordinated then the minefield can be lethal to the enemy.

"Smart" antipersonnel landmines are also a tremendous risk to U.S. soldiers. Minefields must be properly marked on maps and that information disseminated to all units to prevent fratricide. Through its own doctrine the military acknowledges the difficulty in doing this. Even when the information is disseminated, confusion in the midst of the mock battle may cause our soldiers to blunder in to their own minefields. During the recent Army Warfighting Experiment (March 1997) at the National Training Center, friendly landmines claimed 82 U.S. lives. Landmines were the biggest single cause of fratricide during that particular rotation. 49

THE ALLIED VIEW

The views of the South Korean government should be considered in any decision to remove the anti-personnel mine capability from its country. South Korea has expressed the need to retain the use of landmines of all types in the defense of its

country. South Korea, in fact, views landmines as "a symbol of peace and security" in their nation. Deputy Defense Minister Lieutenant General Park Yong-ok, a strong defender of mines, stated that "deterrence of war is more humanitarian than anything." He further states that "if we fail to deter war, a tremendous number of civilians will be killed." He sums up the South Korean view by saying that "the use of landmines is a very effective way of deterring war."

There are two responses to this view. The first response is that it is historically inaccurate. Landmines have never served as a major deterrent to war. As discussed earlier, antipersonnel landmines have had little impact on a determined foe. The second response to Lieutenant General Park Yong-ok is that the strategic situation in Korea may be changing. U.S. State Department officials announced on 18 November 1997 that North Korea finally appears ready to start serious negotiations on a formal end to the Korean War. Four way talks between North Korea, South Korea, China, and the United States began in Geneva in December. The talks could lead to an armistice easing some of the tensions between the two Koreas. A U.S. State Department official said "the very act of talking about peace talks reduced tensions, and further formal negotiations toward an armistice will help create the framework of confidence that makes such a political move meaningful."54 This change in the political environment further reduces the risk of banning and removing

anti-personnel landmines in Korea.

In summary, there is a "window of opportunity" to adjust policy with North Korea, reduce tensions and possibly remove landmines. The U.S. should work with the new South Korean government to consider using the removal of anti-personnel landmines as a diplomatic lever for more effective negotiations with North Korea. The replacement of mines with additional personnel and equipment could be suspended as long as negotiations remain active and an armistice appears possible.

CONCLUSION

The United States is seen as a great military power holding on to a weapon that kills indiscriminately. The U.S. military has an unmatched ability to classify, detect, and target enemy forces with sophisticated sensors and this ability is growing rapidly. The sophisticated sensors and this ability is growing rapidly. The sophisticated sensors and this ability is growing rapidly. The sophisticated sensors and this ability is growing rapidly. The sophisticated sensors and this ability is growing rapidly. The sophisticated sensors and this ability is growing rapidly. The sophisticated sensors and this ability is growing rapidly. The sophisticated sensors are some sophisticated sensors and this ability is growing rapidly. The sophisticated sensors and this ability is growing rapidly. The sophisticated sensors and this ability is growing rapidly. The sophisticated sensors and this ability is growing rapidly. The sophisticated sensors and this ability is growing rapidly. The sophisticated sensors and this ability is growing rapidly. The sophisticated sensors are sophisticated sensors and this ability is growing rapidly. The sophisticated sensors and this ability is growing rapidly. The sophisticated sensors and this ability is growing rapidly.

In 25 years of conflict, large and small, the United States has not found anti-personnel landmines, either "smart" or "dumb," to be of military necessity. "Smart" anti-personnel landmines are difficult to use. They cannot be accurately located and are a threat to combatants on both sides and civilians alike. Anti-personnel landmines have such an impact on humanitarian issues and friendly military operations that their use is controlled at

the highest levels. Finally, the "unique situation" causing tension in Korea may be on the verge of subsiding.

Furthermore, the United States is the preeminent military power in the world. There is no nation that constitutes a threat to the United States on the battlefield. Our current weapons, tactics, and skill, coupled with the absence of a military threat, make this a perfect time to find alternatives to antipersonnel landmines and adjust our tactics to compensate for any perceived lethality shortfall. The risk to military servicemen worldwide would be minimal.

Great powers have great responsibility. The United States has the opportunity to exercise its influence, change its total anti-personnel landmine policy and set an example for the rest of the world to follow. The following actions would seem appropriate. First, the United States should immediately sign the Ottawa Treaty and continue working through the Conference on Disarmament (CD) to secure a world-wide ban on anti-personnel landmines. Second, the U.S. should rescind PDD 48 and PDD 54, but continue the efforts set forth in "Demining 2010." The U.S. should continue to challenge the world to meet its commitment to demining. Third, TRADOC should continue working the adjustments in doctrine that will be necessary without landmines. New, nonlethal technologies, such as unattended ground sensors, need to be developed and fielded to replace the anti-personnel mine capability. Fourth, the U.S. should enter into negotiations with

South Korea to convince them of the questionable utility of antipersonnel landmines and the low risk of removing them from the Korean peninsula. If the U.S. and Korea were to agree to remove the mines, they would have 10 years complete the task. This period provides adequate time to replace any lost capability. These changes in U.S. anti-personnel landmine policy would not affect the use of anti-tank mines. Finally, the United States could achieve the moral high ground in arm's negotiations by changing its landmine policy and then insist that the rest of the world follow suit. (5268 words)

ENDNOTES

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- ⁵ Colin King, <u>Jane's Mines and Mine Clearance 1996</u>, Alexandria, VA, 1996, page 386.
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